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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,472	10/02/2000	Luis Aldaz	VLSI-3510	4514

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EXAMINER

WARE, CICELY Q

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,472

Applicant(s)

ALDAZ ET AL.

Examiner

Cicely Ware

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

2. The abstract of the disclosure is objected to because:
 - a. Pg. 41, line 15, applicant uses the phrase "a newly finger assignment". Examiner suggests using "a new finger assignment" for clarification purposes.
 - b. Pg. 3, line 26, applicant makes reference to "signal 10b". Examiner suggests applicant use either 100b or 101b for clarification purposes.
 - c. Pg. 5, line 20, applicant uses the phrase "cause an perceptible". Examiner suggests using "cause a perceptible" for clarification purposes.
 - d. Pg. 7, line 18, applicant uses the phrase "can then compared to". Examiner suggests using "can then be compared to" for clarification purposes.
 - e. Pg. 7, line 24, applicant uses the phrase "a newly finger assignment". Examiner suggests using "a new finger assignment" for clarification purposes.
 - f. Pg. 9, line 4, Examiner suggests deleting spaces between "invention." and "The".

- g. Pg. 9, line 11, applicant uses the phrase "FIGURE 1B is graph of". Examiner suggests using "FIGURE 1B is a graph of" for clarification purposes.
- h. Pg. 21, line 6, examiner suggest deleting space in "recover y".
- i. Pg. 28, line 8, applicant uses the phrase "high probably of ". Examiner suggests applicant re-write this phrase for clarity.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

- 3. Claims 1-10 recite the limitation:
 - a. said second signal-strength, in Claim 1
 - b. said combine operation, in Claim 10

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 5. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eberhardt et al. (US Patent 5,754,583) in view of Levin et al. (US Patent 6,201,827).

(1) With regard to claim 1, Eberhardt et al. discloses a communication device and

method of managing a finger assignment in a wireless communication device, said method comprising the steps of (abstract, col. 2, lines 41-51, col. 3, lines 12-17): receiving said finger assignment from a searcher portion of communication device (col. 2, lines 41-51); determining a signal-strength for said finger assignment (col. 2, lines 41-51); enabling said finger assignment for a combine operation if said signal-strength for said finger assignment satiates a first signal-strength threshold (col. 2, lines 41-51). However, Eberhardt et al. does not disclose preventing said finger assignment from being de-assigned if said signal-strength of said finger assignment satiates a second threshold, said second signal-strength threshold being less than said first signal-strength threshold.

However Levin et al. discloses a lock detection method which includes preventing said finger assignment from being de-assigned if said signal-strength of said finger assignment satiates a second threshold, said second signal-strength threshold being less than said first signal-strength threshold (col. 7, lines 59-64, col. 8, lines 11-24, col. 12, lines 60-67, col. 13, lines 1-4).

Therefore it would have been obvious to one of ordinary skill in the art to modify Eberhardt et al. to incorporate preventing said finger assignment from being de-assigned if said signal-strength of said finger assignment satiates a second threshold, said second signal-strength threshold being less than said first signal-strength threshold in order to improve accuracy of the determination of what data was transmitted in which accuracy is maximized by ensuring that the energies of all received signals are available to be combined.

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1.

Furthermore Levin et al. discloses the step of determining a time period over which said signal-strength of said finger assignment satiates said second signal-strength threshold (col. 12, lines 26-30, 34-37, 43-47).

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 2. Eberhardt et al. further discloses the step of preventing said finger assignment from being de-assigned if said time period satiates a time threshold (col. 3, lines 12-17, col. 10, lines 19-25).

(4) With regard to claim 4, claim 4 inherits all the limitations of claim 2. Eberhardt et al. further discloses the step of allowing said finger assignment to be de-assigned if said finger assignment fails to satiate said time threshold (col. 2, lines 56-59, col. 9, lines 66-67, col. 10, lines 1-8, 11-13, 25-30).

(5) With regard to claim 5, claim 5 inherits all the limitations of claim 1. Levin et al. further discloses the step of allowing said finger assignment to be de-assigned if said finger assignment fails to satiate said second signal-strength threshold (col. 13, lines 24-27).

(6) With regard to claim 6, claim 6 inherits all the limitations of claim 1. Levin et al. further discloses the step of demodulating said finger assignment (col. 5, lines 34-42, 48-59).

(7) With regard to claim 7, claim 7 inherits all the limitations of claim 1. Eberhardt et al. further discloses the step of filtering said signal-strength of said finger assignment as determined in step (b) (co. 5, lines 27-28, col. 6, lines 66-67, col. 7, lines 1-3).

(8) With regard to claim 8, claim 8 inherits all the limitations of claim 1.

Furthermore, Eberhardt et al. discloses the step of categorizing said finger assignment into one of a plurality of states based upon said signal-strength of said finger assignment (col. 4, lines 63-67, col. 11, lines 29-31, col. 12, lines 43-48, 55-67).

(9) With regard to claim 9, claim 9 inherits all the limitations of claim 2. Eberhardt et al. further discloses the step of categorizing said assignment into one of a plurality of states based upon said signal-strength of said finger assignment and based upon said time period over which said signals strength exists (col. 11, lines 33-37).

(10) With regard to claim 10, claim 10 inherits all the limitations of claim 8. Furthermore Eberhardt et al. discloses evaluating said finger assignment for said combine operation or for de-assignment based upon its state (col. 11, lines 65-67, col. 12, lines 1-11, 63-67).

(11) With regard to claim 11, claim 11 inherits all the limitations of claim 1. Furthermore, Levin et al. discloses in (Fig. 2) a transceiver (204)(col. 5, lines 13-17); a processor, coupled to said transceiver (208); and a computer readable memory unit (Fig. 3, 312) coupled to the processor, containing program instructions stored therein that execute, via said processor (col. 10, lines 22-34).

(12) With regard to claim 12, claim 12 inherits all the limitations of claims 11 and 2.

(13) With regard to claim 13, claim 13 inherits all the limitations of claims 12 and 3.

(14) With regard to claim 14, claim 14 inherits all the limitations of claims 12 and
4.

(15) With regard to claim 15, claim 15 inherits all the limitations of claims 11 and
5.

(16) With regard to claim 16, claim 16 inherits all the limitations of claims 11 and
6.

(17) With regard to claim 17, claim 17 inherits all the limitations of claims 11 and
7.

(18) With regard to claim 18, claim 18 inherits all the limitations of claims 11 and
8.

(19) With regard to claim 19, claim 19 inherits all the limitations of claims 12 and
9.

(20) With regard to claim 20, claim 20 inherits all the limitations of claims 18 and
10.

(21) With regard to claim 21, claim 21 inherits all the limitations of claim 1. Levin
et al. further discloses a computer readable medium containing therein computer
readable codes for causing an electronic device to implement a method of managing
said multi-path signals (col. 2, lines 49-54, col. 10, lines 22-34).

(22) With regard to claim 22, claim 22 inherits all the limitations of claims 21 and
2.

(23) With regard to claim 23, claim 23 inherits all the limitations of claims 22 and
3.

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(24) With regard to claim 24, claim 24 inherits all the limitations of claims 22 and
4.

(25) With regard to claim 25, claim 25 inherits all the limitations of claims 21 and
5.

(26) With regard to claim 26, claim 26 inherits all the limitations of claims 21 and
6.

(27) With regard to claim 27, claim 27 inherits all the limitations of claims 21 and
7.

(28) With regard to claim 28, claim 28 inherits all the limitations of claims 21 and
8.

(29) With regard to claim 29, claim 29 inherits all the limitations of claims 22 and
9.

(30) With regard to claim 30, claim 30 inherits all the limitations of claims 28 and
10.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
December 9, 2003



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800